

In the claims:

Claim 1 (currently amended) A process for the N- monomethylation of nitrogenous heterocycles having at least one nitrogen atom bonded to a hydrogen atom comprising reacting said heterocycle with dimethyl carbonate at a temperature of between 100°C and 200°C and at a pressure of between 0.93 to 10⁵ Pa and 1.07 x 10⁵ Pa while continuously withdrawing the methanol produced during the reaction.

Claim 2 (previously presented) The process of Claim 1, wherein the nitrogenous heterocycles have a boiling point of at least equal to 120°C.

Claim 3 (previously presented) The process of Claim 2, wherein the nitrogenous heterocycles are selected from the group consisting of azoles and benzene derivatives thereof, indoline, pyrazolidine, morpholine, piperazine and azepine.

Claim 4 (previously presented) The process of Claim 1, wherein the reaction is carried out at a temperature of between 120°C and 180°C.

Claim 5 (previously presented) The process of Claim 1, wherein the amount of dimethyl carbonate is between 1 and 5 mole per mole of nitrogenous heterocycle.

Claim 6 (previously presented) The process of Claim 1, wherein the dimethyl carbonate is added to the reactor medium over a period of time.

Claim 7 (previously presented) The process of Claim 6, wherein the dimethyl carbonate is introduced into the reactor medium with a flow rate of between 0.001 mol/mol of nitrogenous heterocycle per hour and 1 mol/mol of nitrogenous heterocycle per hour.

Claim 8 (currently amended) A process for the N- monomethylation of nitrogenous heterocycles having at least one nitrogen atom bonded to a hydrogen atom comprising reacting said heterocycle with dimethyl carbonate at a temperature of between 100°C and 200°C and at a pressure of between 0.93 to 10⁵ Pa and 1.07 x 10⁵ Pa while continuously withdrawing the methanol produced during the reaction wherein the nitrogenous heterocycle comprises at least two nitrogen atoms each bonded to a hydrogen atom.

Claim 9 (previously presented) The process of Claim 8, wherein the monomethylated nitrogenous heterocycle is continuously withdrawn.